

Choose the method to solve a system!

Substitution

Graph

Elimination

When would GRAPHING be your BEST choice to solve a system?

- When equations are
in $y = mx + b$

$$\left. \begin{array}{l} y = 2x + 3 \\ y = 4x - 1 \end{array} \right\}$$

When would SUBSTITUTION be your BEST choice to solve a system?

- give the solution for 1 variable

- when a variable is isolated

$$\begin{cases} y = 7x + 3 \\ x = 4 \end{cases}$$

$$\begin{cases} 3x + 5y = 17 \\ x = 2y + 3 \end{cases}$$

When would ELIMINATION be your BEST choice to solve a system?

- when variable & constants are in columns
- opposite terms

$$\begin{array}{r} 3x + 2y = 9 \\ -3x + 8y = 28 \end{array}$$

Solve the system with graphing, substitution or elimination. Write a sentence explaining why you used the method you chose.

$$\begin{array}{r} 2x + y = -10 \\ + \quad 3x - y = 0 \\ \hline \end{array}$$

$$\frac{5x}{5} = \frac{-10}{5}$$

$$x = -2$$

$$2(-2) + y = -10$$

$$\begin{array}{r} -4 + y = -10 \\ +4 \quad +4 \\ \hline \end{array}$$

$$y = -6$$

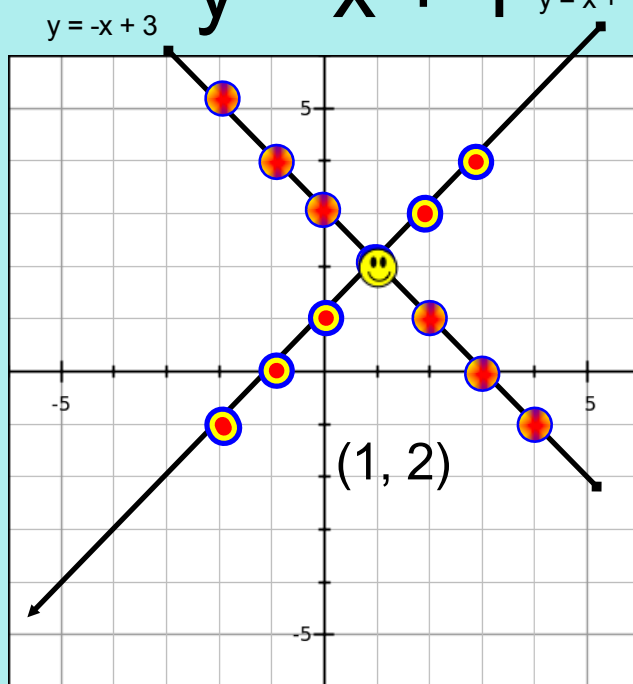
$$(-2, -6)$$



Solve the system with graphing, substitution or elimination. Write a sentence explaining why you used the method you chose.

$$y = -x + 3$$

$$y = x + 1$$



Solve the system with graphing, substitution or elimination. Write a sentence explaining why you used the method you chose.

$$q = 4 - p$$

$$4p + q = 1$$

$$q = 4 - p$$

$$q = 4 + + 1$$

$$q = 5$$

$$(-1, 5)$$

$$4p + (4 - p) = 1$$

$$4p + 4 - p = 1$$

$$\begin{array}{r} -p \\ \hline \end{array}$$

$$\begin{array}{r} 3p + 4 = 1 \\ -4 \\ \hline \end{array}$$

$$\begin{array}{r} 3p = -3 \\ \hline \end{array}$$

$$p = -1$$



Solve the system with graphing, substitution or elimination. Write a sentence explaining why you used the method you chose.

$$2y = x$$

$$4y = 300 - x$$



Solve the system with graphing, substitution or elimination. Write a sentence explaining why you used the method you chose.

$$2p - q = 2$$

$$2p + 3q = 18$$



Solve the system with graphing, substitution or elimination. Write a sentence explaining why you used the method you chose.

$$x = -3$$

$$2x - 3y = 9$$



HOMEWORK

Choose your own
method WKSH